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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,081	10/04/2005	Maarten De Leuw	NL 030349	4153

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
ROBINSON, ELIZABETH A	
ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
12/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/552,081	DE LEUW ET AL.	
	Examiner	Art Unit	
	Elizabeth Robinson	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-6 and 9-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-6 and 9-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9-11-2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 4-6 and 9-16 are currently pending.

Election/Restrictions

Applicant's election of Group I, claims 1-6 and 9-16 in the reply filed on October 11, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 7 and 8 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 11, 2007.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 4-6 and 9-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 1, the limitation "the coating comprising at least 30% by weight of a binder" is not supported by the specification. The specification states a weight percentage of the substituent groups that are a part of the binder, but does not state a weight percentage for the binder as a part of the coating. All other claims depend from claim 1 and thus, also fail the written description requirement.

Claims 1, 4-6 and 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear if the weight percentage of the binder is for the coating with the solvent, prior to drying, or the dried coating. All other claims depend from claim 1 and are thus, also rendered indefinite.

Regarding claim 10, it is unclear what is meant by the phrase "of normally incident back light thereon" in the third line of claim 10. The examiner is interpreting this to mean that the coated plate transmits more than 60% of normally incident light from inside the luminaire through the plate to the outside.

Claim Rejections - 35 USC § 103

Claims 1, 4, 5, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sools et al. (US 2001/0040809).

Regarding claim 1, Sools (Paragraphs 1-3) teaches a luminaire comprising a reflector body (housing), accommodating a light source. The reflector portion has a reflective surface with a coating that comprises light-reflecting particles. Sools (Paragraph 18) further teaches that the coating is coated on the reflector portion of a Philips MPF 211 type luminaire. This type of luminaire has a light transmitting cover plate. Both diffuse and specular reflection occurs at the coating (Paragraph 6). The binder of the coating can be a fluoropolymer. A common fluoropolymer is poly(tetrafluoroethylene), which would meet the limitation of the structural formula of claim 1 with R^1, R^2, R^3, and R^4 as F. Sools does not specify the solvent for a fluoropolymer, however, in the final form of the luminaire (product), the solvent has been removed. Thus, the choice of solvent would be a process step. The patentability of a product is independent of how it was made. Ex parte Jungfer 18 USPQ 1796, 1800 (BPAI 1991); Brystol-Myers Co. v. U.S. International Trade Commission 15 USPQ 2d 1258 (Fed. Cir. 1989). The burden is on applicants to show product differences in product by process claims. In re Thorpe 227 USPQ 964 (Fed. Cir. 1985); In re Best 195 USPQ 430 (CCPA 1977). Therefore applicant's composition would have been obvious to one of ordinary skill in the art based upon the prior art of Sools, due to its final product structure. Sools (Paragraph 9) teaches that the light reflecting particles are in a comparatively low percentage by volume with respect to the binder. This ensures that the particles are fully enclosed by the binder. Sools does not explicitly teach the weight percentage of the binder in the coating. In the example composition, the particles are 25% by volume with respect to the volume of the coating (Paragraph 19). This would

mean that the binder would be 75% by volume of the coating. With this high percentage of binder by volume, the weight percentage limitation for the binder should be met. Alternately, it would be obvious to one of ordinary skill in the art to vary the amount of binder and particles in order to ensure that the particles are completely enclosed by the binder.

Regarding claim 4, Sools (Paragraph 18 and Figure 1) teaches that the diffuse reflective coating is applied as a reflector on the inner back surface of the housing.

Regarding claim 5, Sools (Paragraph 18) teaches that the coating has a total reflection of more than 95%.

Regarding claim 14, Sools (Paragraph 11) teaches that the light reflecting particles of the coating can be halophosphates, calcium pyrophosphate, or titanium dioxide.

Regarding claim 16, Phillips MPF 211 type luminaries are used for canopy ceiling lighting in filling stations.

Claims 1, 6, 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnette (US 3,306,956).

Regarding claims 1, 9 and 10, Barnette (Column 11, lines 26-53 and Figures 9, 21 and 22) teaches a luminaire comprising a housing, with an illuminating bulb, that transmits light through a light transmitting plate. Coating layer 10 can be a separate layer that is comprised of a liquid resin (binder) and pigment particles, such as titanium

dioxide and is located on an inner side of the housing, on the inside surface of the light transmitting plate. The coating makes the panel translucent and produces a diffused white light. As the structure of the coating is the same as in the instant application, titanium dioxide particles in a binder to provide a diffuse light, the coating should inherently also be reflective. The binders are taught in Column 20, line 22 through Column 21, line 2. These binders include acrylic acid esters, which would include methyl acrylate. This compound meets the limitation of the structural formula of claim 1 with R^1, R^2, and R^4 as H, and R^3 as $COOCH_3$. Barnette does not specify the solvent, however, in the final form of the luminaire (product), the solvent has been removed. Thus, the choice of solvent would be a process step. The patentability of a product is independent of how it was made. Ex parte Jungfer 18 USPQ 1796, 1800 (BPAI 1991); Brystol-Myers Co. v. U.S. International Trade Commission 15 USPQ 2d 1258 (Fed. Cir. 1989). The burden is on applicants to show product differences in product by process claims. In re Thorpe 227 USPQ 964 (Fed. Cir. 1985); In re Best 195 USPQ 430 (CCPA 1977). Therefore applicant's composition would have been obvious to one of ordinary skill in the art based upon the prior art of Barnette, due to its final product structure. Barnette (Column 11, lines 26-41) teaches that the pigment is present in the resin in a quantity which makes the panels translucent. The amount of pigment added to the coating would be a result effective variable that would determine how translucent the panel is, or in other words, how much light the panel would transmit. It would be obvious to one of ordinary skill in the art to vary the amount of pigment and binder in the

coating, in order to obtain a desired level of translucence or light transmission for the panel.

Regarding claims 6, 11 and 12, Barnette (Column 11, lines 41-53) teaches that, in an application as a luminaire, it is desirable that the film is of a material that absorbs or screens ultraviolet light. Barnette (Column 8, line 48-60) teaches that a material that screens or absorbs ultraviolet light can be made by reacting the surface of the polymer film with benzoyl compounds and an isocyanate. Reacting the surface of an acrylate layer with an isocyanate results in crosslinking.

Regarding claims 13 and 14, the pigment containing layer can also be considered an ultraviolet light blocking layer, since it incorporates titanium dioxide (TiO_2) particles within the coating.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnette, in view of Allen et al. (US 6,057,961). As stated above, Barnette teaches a luminaire that meets or can be obviously modified to meet the limitations of claim 1. Barnette does not explicitly teach the uses of the luminaire. Allen (Column 29, line 20 through Column 30, line 60) teaches that luminaires with diffuse coatings that obscure the light source from direct viewing are used for both lighting fixtures and backlights for LCD screens. It would be obvious to one of ordinary skill in the art to use the luminaire of Barnette, for the uses taught in Allen, in order to provide a diffuse light source in which the light source is not directly visible.

Claims 1, 4, 5, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sools et al., in view of Dohany (US 4,141,873).

Regarding claim 1, as stated above, Sools teaches a luminaire with a housing, light source, light-transmitting plate, and a diffuse reflective coating. The binder of the coating can be a fluoropolymer or an acrylate. The solvent for fluoropolymer/acrylate coatings is not taught. Dohany (Column 1, line 62 - Column 2, line 14) teaches a vinylidene fluoride/acrylate coating composition with a water solvent. The coating composition forms high quality coatings, which are non-polluting (Column 1, lines 51-56). Vinylidene fluoride would meet the limitation of the structural formula of claim 1 with R^1 and R^2 as H and R^3 and R^4 as F. It would be obvious to one of ordinary skill in the art to use the fluoropolymer coating composition of Dohany, as the fluoropolymer binder of Sools, in order to obtain a high quality coating does not use air-polluting solvents. Sools does not explicitly teach the weight percentage of the binder in the coating. In the example composition, the particles are 25% by volume with respect to the volume of the coating (Paragraph 19). This would mean that the binder would be 75% by volume of the coating. With this high percentage of binder by volume, the weight percentage limitation for the binder should be met. Alternately, it would be obvious to one of ordinary skill in the art to vary the amount of binder and particles in order to ensure that the particles are completely enclosed by the binder.

Regarding claim 4, Sools (Paragraph 18 and Figure 1) teaches that the diffuse reflective coating is applied as a reflector on the inner back surface of the housing.

Regarding claim 5, Sools (Paragraph 18) teaches that the coating has a total reflection of more than 95%.

Regarding claim 14, Sools (Paragraph 11) teaches that the light reflecting particles of the coating can be halophosphates, calcium pyrophosphate, or titanium dioxide.

Regarding claim 16, Phillips MPF 211 type luminaries are used for canopy ceiling lighting in filling stations.

Response to Arguments

Applicant's arguments filed October 11, 2007 have been fully considered but they are not persuasive.

Regarding Applicant's arguments that Sools teaches a cyclohexane solvent, this solvent is only taught in the example using a silicone binder. No solvent is taught for a fluoropolymer or acrylate binder.

Applicant's argues that the water is retained in the coating since the coating is crosslinked and then heated. During crosslinking, the binders are crosslinked, not the solvent and then with heating the solvent is removed. The stated coating properties, protection from aging and discoloration are a function of the binder composition not the solvent. Applicant has not shown any evidence that a coating with the same binders, but different solvent, would have any different aging or discoloration properties.

Regarding an obvious-type double patenting rejection over Sools, the claimed binder of Sools is a silicone and thus there are no grounds for such a rejection.

Regarding Applicant's arguments that Barnette does not teach a diffuse, reflective panel, as stated above, Barnette teaches a luminaire with a diffuse coating that will have reflective properties.

Regarding Applicant's arguments on the combination of Sools and Dohany, as stated above, Sools does not teach a solvent for a fluoropolymer or acrylate coating. Thus, one would be motivated to find an appropriate binder and solvent combination that would form a high quality coating. The oxygen monomer is the acrylate portion of the binder. The reflective properties of the coating are not from the binder, but rather from the incorporated particles. Thus, one is not limited to reflective coatings. Further, Dohany (Column 3, lines 8-22) teaches that pigments such as titanium dioxide can be added to the composition, in order to give the coating a desired degree of opacity. Thus, the binder would be compatible with the reflective particles and would provide a high quality coating.

Regarding Applicant's arguments that the coating is not cross-linked with the isocyanate, as stated above, reacting the surface of an acrylate layer with an isocyanate results in crosslinking.

The 35 U.S.C. 112, second paragraph, rejection of claims 5 and 10 for narrow and broad ranges in a single claim from the July 13, 2007 Office Action is withdrawn. The other rejection of claim 10 for indefiniteness, as stated above, is maintained.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Robinson whose telephone number is 571-272-7129. The examiner can normally be reached on Monday- Friday 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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CAROL CHANEY
SUPERVISORY PATENT EXAMINER